



DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG-2021-0236]

Cooperative Research and Development Agreement: Evaluating Unmanned Surface Vessel Characteristics for Coast Guard Platforms

AGENCY: Coast Guard, DHS.

ACTION: Notice of intent; request for comments.

SUMMARY: The Coast Guard is announcing its intent to enter into a Cooperative Research and Development Agreement (CRADA) with Sea Machines Robotics. Sea Machines Robotics will work with the USCG Research and Development Center (RDC) to modify the currently existing SM300 system installed on the USCG RDC unmanned surface vessel (USV) to determine what parameters and behaviors would be beneficial for USCG mission sets. Additionally, the agreement will investigate the current state of collision avoidance in autonomous unmanned surface vessels (USVs), to develop a better understanding of how these capabilities should be evaluated/regulated in the future. The Coast Guard invites other potential non-Federal participants, who have the interest and capability to bring similar contributions to this type of research, to submit proposals for consideration in similar CRADAs.

DATES: Comments must be submitted to the online docket via <http://www.regulations.gov>, or reach the Docket Management Facility, on or before **[INSERT DATE 30 DAYS FROM DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

Synopses of proposals regarding future CRADAs must reach the Coast Guard (see FOR FURTHER INFORMATION CONTACT) on or before **[INSERT DATE 30 DAYS FROM DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Submit comments online at <http://www.regulations.gov> following website

instructions.

FOR FURTHER INFORMATION CONTACT: If you have questions on this notice or wish to submit proposals for future CRADAs, contact Derek Meier, Project Official, Surface Branch, U.S. Coast Guard Research and Development Center, 1 Chelsea Street, New London, CT 06320, telephone 860-271-2600, e-mail RDC-Info@uscg.mil.

SUPPLEMENTARY INFORMATION:

Public Participation and Request for Comments

We request public comments on this notice. Although we do not plan to respond to comments in the *Federal Register*, we will respond directly to commenters and may modify our proposal in light of comments.

Comments should be marked with docket number USCG-2021-0236 and should provide a reason for each suggestion or recommendation. You should provide personal contact information so that we can contact you if we have questions regarding your comments; but please note that all comments will be posted to the online docket without change and that any personal information you include can be searchable online (see the Federal Register Privacy Act notice regarding our public dockets, 73 FR 3316, Jan. 17, 2008). We also accept anonymous comments.

We encourage you to submit comments through the Federal eRulemaking Portal at <http://www.regulations.gov>. If your material cannot be submitted using <http://www.regulations.gov>, contact the Coast Guard (see FOR FURTHER INFORMATION CONTACT). Documents mentioned in this notice, and all public comments, are in our online docket at <http://www.regulations.gov> and can be viewed by following that website's instructions. Additionally, if you go to the online docket and sign up for email alerts, you will be notified when comments are posted or a final rule is published.

Do not submit detailed proposals for future CRADAs to the Docket Management Facility. Instead, submit them directly to the Coast Guard (see FOR FURTHER INFORMATION CONTACT).

Discussion

CRADAs are authorized under 15 U.S.C. 3710(a).¹ A CRADA promotes the transfer of technology to the private sector for commercial use, as well as specified research or development efforts that are consistent with the mission of the Federal parties to the CRADA. The Federal party or parties agree with one or more non-Federal parties to share research resources, but the Federal party does not contribute funding.

CRADAs are not procurement contracts. Care is taken to ensure that CRADAs are not used to circumvent the contracting process. CRADAs have a specific purpose and should not be confused with procurement contracts, grants, and other type of agreements.

Under the proposed CRADA, the R&D Center will collaborate with one non-Federal participant. Together, the R&D Center and the non-Federal participant will evaluate which USV characteristics and parameters would be beneficial to the USCG mission set. Additionally, both partners will evaluate how collision avoidance technology should be validated on these platforms in the future. We anticipate that the Coast Guard's contributions under the proposed CRADA will include the following:

1. Provide appropriate staff with expertise to accomplish the above mentioned tasks.
2. Draft test plan.
3. Provide all support resources, including travel for Coast Guard staff that support this CRADA.
4. Obtain, transport, and provide all of the parts, tools, and equipment necessary to prepare the platform for Sea Machines Robotics modifications.
5. Provide the 29RDC and qualified crew for the testing.
6. Provide all resources required for the conduct of the testing on the 29RDC.
7. Execute the testing IAW with the agreed upon test plan.

¹ The statute confers this authority on the head of each Federal agency. The Secretary of DHS's authority is delegated to the Coast Guard and other DHS organizational elements by DHS Delegation No. 0160.1, para. II.B.34.

We anticipate that the non-Federal participants' contributions under the proposed CRADA will include the following:

1. Provide appropriate staff with expertise to support the above mentioned tasks.
2. Provide all support resources, including travel for Sea Machines Robotics staff who support this CRADA, if required.
3. Provide the technical data package for all equipment, including dimensions, weight, power requirements, and other technical considerations for the additional components to be utilized under this CRADA.
4. Review test plan.
5. Provide any specific training, along with technical support, to those Coast Guard members evaluating the technology proposals submitted for this CRADA.

The Coast Guard will provide no funding for reimbursement of proposal development costs.

Proposals and any other material submitted in response to this notice will not be returned.

Proposals submitted are expected to be unclassified and have not more than five single-sided pages (excluding cover page, DD 1494, JF-12, etc.). The Coast Guard will select proposals at its sole discretion on the basis of:

- (1) How well they communicate an understanding, of and ability to meet, the proposed CRADA's goal; and
- (2) How well they address the following criteria:
 - (a) Technical capability to support the non-Federal party contributions described, and
 - (b) Resources available for supporting the non-Federal party contributions described.

Currently, the Coast Guard is considering Sea Machines Robotics for participation in this CRADA. This consideration is based on the fact that Sea Machines has demonstrated its technical ability for autonomous USVs and the USCG RDC currently has one of their systems installed aboard their 29 foot vessel. However, we do not wish to exclude other viable participants from this or future similar CRADAs.

This is a technology assessment effort. The goal of the Coast Guard for this CRADA is to determine what USV characteristics/parameters would be recommended for the operational use of

a Coast Guard platform of this size, and also to gain a better understanding of how collision avoidance of USVs should be validated and regulated in the future. Special consideration will be given to small business firms/consortia, and preference will be given to business units located in the U.S. This notice is issued under the authority of 5 U.S.C. 552(a).

Daniel P. Keane,
Commanding Officer,
U.S. Coast Guard Research and Development Center.
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